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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,599	11/24/2003	Satoshi Takezawa	117846	1008
25944	7590	01/24/2005		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER DOTE, JANIS L	
			ART UNIT 1756	PAPER NUMBER

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/718,599

Applicant(s)

TAKEZAWA ET AL.

Examiner

Janis L. Dote

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/24/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1756

1. This office action is responsive to the applicants' response filed on Dec. 3, 2004.

2. Applicants' election of the invention of Group I, claims 1-10, in the reply filed on Dec. 3, 2004, is acknowledged. Because applicants did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 11-20 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. The election filed on Dec. 3, 2004, has been treated as an election **without** traverse.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

Fig. 6, reference characters 8, 10, and 18. See the instant specification, page 27.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing

Art Unit: 1756

sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. Figures 8 and 9 should be designated by a legend such as -- Prior Art-- because only that which is old is illustrated.

See MPEP § 608.02(g).

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point

Art Unit: 1756

out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3 and 4 are indefinite because it is not clear what is the basis of the weight percentages recited in the instant claims, e.g., the weight of the binder resin or the total weight of the toner.

7. In the interest of compact prosecution, the weight percentages recited in instant claims 3 and 4 have been interpreted by the examiner as being based on the total weight of the toner. Rejections base of this interpretation are set forth infra.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Art Unit: 1756

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f), or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1, 5-7, 9, and 10 are rejected under 35 U.S.C.

103(a) as being unpatentable over Japanese Patent 2003-21418

(JP'418). See the Japanese Patent Office (JPO) machine-assisted translation of JP'418.

JP'418 discloses a toner comprising a styrene-n-butylacrylate binder resin, the colorant carbon black, an "antistatic agent," and about 11 wt%, based on the weight of the toner, of the polyglycerol fatty acid ester compound, in which the fatty acid esters are palmitate (C16) and behenate (C22). The polyglycerol fatty acid ester compound has a polymerization degree of 6 and an esterification degree of 95%. Translation, paragraphs 0015-0016, and example 1 in paragraph 0018. The amount of the polyglycerol fatty acid ester compound was determined from the information provided in paragraph 0018. The esterification degree of 95% is within the range of 50% or higher recited in instant claim 1. JP'418 further discloses that the toner may be a "1 component toner" or a "2 component toner." Translation, paragraph 0013. In other words, the JP'418 toner may be used as a one component developer or in a

Art Unit: 1756

two-component developer that further comprises a carrier, which meets the limitations recited in instant claims 5 and 6. JP'418 also teaches that the binder resin may equally be a polyester binder resin as recited in instant claim 7.

As discussed supra, the JP'418 toner comprises the colorant carbon black. JP'418 does not disclose that the colorant carbon black is used as a light absorbing material as recited in the instant claims. However, the instant specification at page 12, line 8, discloses that black pigments such as carbon black can be used as light absorbing materials as recited in instant claim 9. Thus, the JP'418 colorant carbon black meets the compositional limitation recited in instant claim 9. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

JP'418 does not exemplify a toner comprising a polyglycerol fatty acid ester compound where the polymerization degree is 9 to 30 as recited in instant claim 1. However, JP'418 teaches that the polyglycerol fatty acid ester compound may have a polymerization degree ranging from 2 to 15, which is "computed from the hydroxyl value." Translation, paragraph 0009. JP'418 discloses that a polyglycerin (i.e., polyglycerol) having a polymerization of 10, which is "computed by the hydroxyl value," is commercially available as product #750 from Sakamoto

Art Unit: 1756

Pharmaceutical Industry. Translation, paragraph 0015. The polymerization degree of 2 to 15 overlaps the range of 9 to 30 recited in instant claim 1. A polymerization degree of 10 and the upper limit, 15, of the polymerization degree range of 2 to 15, are within the range of 9 to 30 recited in instant claim 1. JP'418 teaches that the addition of its polyglycerol fatty acid ester in the binder resin of toners improves the low temperature fixing property and block resistance of said toners. Paragraph 0005.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings in JP'418, to use a polyglycerol fatty acid ester compound with an esterification degree of 95% having a polymerization degree within the range recited in instant claim 1, such as 10, as taught by JP'418, as the polyglycerol fatty acid ester compound in the toner in example 1 of JP'418, because that person would have had a reasonable expectation of successfully obtaining a toner having improved a low temperature fixing property and blocking resistance.

JP'418 does not disclose that its toner is used in flash fixation as recited in instant claim 9. However, the recitation "is used in flash fixation" is a recitation of intended use, which does not distinguish the toner recited in the instant

Art Unit: 1756

claims from the toner rendered obvious over the teachings of JP'418. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See In re Casey, 152 USPQ 235 (CCPA 1967) and In re Otto, 136 USPQ 458, 459 (CCPA 1963).

Instant claim 10 is written in product-by-process format. JP'418 does not disclose that its esterification degree of 95% was determined by ^1H -NMR measurement as recited in instant claim 10. However, as discussed supra, the polyglycerol fatty acid ester compound rendered obvious over the teachings in JP'418 meets the compositional limitations recited in instant claim 12 and has an esterification degree of 95%, wherein the 95% is within the numerical range recited in instant claim 10. Thus, it appears that the polyglycerol fatty acid ester compound rendered obvious over the teachings in JP'418 is the same or substantially the same as the polyglycerol fatty acid ester compound recited in instant claim where the degree of esterification is determined by the process recited in instant claim 10. The burden is on applicants to prove otherwise. In

Art Unit: 1756

re Marosi, 218 USPQ 289 (Fed. Cir. 1983) and In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985). MPEP 2113.

11. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'418 as applied to claim 1 above, and further in view of additional teachings in JP'418. See the JPO translation of JP'418 for cites.

JP'418 renders obvious a toner as described in paragraph 10 above, which is incorporated herein by reference.

As discussed in paragraph 10, JP'418 exemplifies a toner comprising 11 wt%, based on the weight of the toner, of its polyglycerol fatty acid ester compound. The amount of 11 wt% is outside the amount ranges of 0.1 to 10% by weight and 1 to 5% by weight, recited in instant claims 3 and 4, respectively.

However, JP'418 teaches that its polyglycerol fatty acid ester compound may be present in amounts of 3 to 35 parts by weight per 100 parts by weight of the binder resin. Translation, paragraph 0011. JP'418 teaches that if the amount of the ester compound is less than 3 parts by weight, the low temperature fixing property and blocking resistance of the toner is "hardly" improved. Translation, paragraph 0011. If the amount of the polyglycerol fatty acid ester compound example 1 is adjusted to 3 or 35 parts by weight per 100 parts by weight

Art Unit: 1756

of the binder resin, the amount of the polyglycerol fatty ester compound would be from about 2 wt% to about 22 wt% based on the total weight of the toner. The lower limit, about 2 wt%, of the range of about 2 to about 22 wt%, based on the weight of the toner, is within the ranges recited in instant claims 3 and 4. Said range of about 2 to about 4 wt% also overlaps the ranges recited in instant claims 3 and 4.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of JP'418, to adjust, through routine experimentation, the amount of the polyglycerol fatty acid ester compound in the toner rendered obvious over the teachings of JP'418, such that the amount is within the ranges recited in instant claims 3 and 4, such as 2 wt%, based on the total weight of the toner, because that person would have had a reasonable expectation of successfully obtaining a toner having improved a low temperature fixing property and blocking resistance, as taught by JP'418.

12. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'418 as applied to claim 1 above, combined with Diamond, Handbook of Imaging Materials, page 169 (Diamond I). See the JPO translation of JP'418 for cites.

JP'418 renders obvious a toner as described in paragraph 10 above, which is incorporated herein by reference.

JP'418 does not explicitly disclose that its toner may comprise a charge control agent as recited in instant claim 2. However, JP'418 teaches that its toner may comprise toner additives, such as an "antistatic agent," a release agent, etc. Translation, paragraph 0013.

The use of positive or negative charge control agents is well known in the art. Diamond discloses that it is known to add charge control additives to toners when blending the pigment into the polymer resin does not give an adequate charge level or rate of charging. Diamond further discloses a number of known charge control agents, including nigrosine and metal complexes, that effectively give the toner a positive or negative charge. Thus, Diamond's teachings apply to both negative and positive charging applications. Diamond I, page 169, section 4.2.3.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of JP'481 and Diamond, to add a charge control agent, such as nigrosine, to the toner particles rendered obvious over the teachings of JP'418, because that person would have had a reasonable expectation of successfully obtaining chargeable toner particles having an adequate charge level and rate of charging.

Art Unit: 1756

13. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP'418 as applied to claim 1 above, combined with Diamond, Handbook of Imaging Materials, pp. 168-169 (Diamond II). See the JPO translation of JP'418 for cites.

JP'418 renders obvious a toner as described in paragraph 10 above, which is incorporated herein by reference.

As discussed in paragraph 10, JP'418 exemplifies a toner comprising the colorant carbon black. JP'418 does not exemplify a toner comprising a color colorant as recited in instant claim 8. However, JP'418 teaches that its toner may comprise a coloring agent, and does not limit the type of coloring agent used. Translation, paragraph 0013.

The use of color coloring agents, besides black coloring agents, is well known in the art. Diamond discloses that the "use of pigments other than black are increasingly playing a role in xerography in two applications. The first is a color to be used in addition to black when there is a desire to highlight certain information. Typical colors used for this application are red, blue, green, and brown, made from either a single pigment or a blend of pigments. The other major application is in the creation of full color documents. Here the subtractive set of pigments, cyan, magenta, and yellow, is used." Diamond,

Art Unit: 1756

page 168, lines 30-36. Diamond discloses that copper phthalocyanine can be used for cyans and blues, azo pigments for yellows, and quinacridones or rhodamines for magentas and reds. Diamond, page 169, lines 1-3.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of JP'418 and Diamond, to use a color colorant as taught by Diamond as the coloring agent in toner rendered obvious over the teachings in JP'418, because that person would have had a reasonable expectation of successfully obtaining a color toner that can be used in an electrophotographic highlighting process or in an electrophotographic process for forming a full color image.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (703) 872-9306.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on

Application/Control Number: 10/718,599

Page 14

Art Unit: 1756

access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLD

Jan. 18, 2005

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GROUP 1500
1700